

# How do we ensure the cleanliness of the calibration pole?

---

## General

Perform LS soak or wet swipe test with LS or acid and background counting of all parts to be immersed in detector. When finished place cables, pivot block, and pole segments and instrumentation units in LS soak with continuous nitrogen purge.

## **Items to be introduced in LS:**

1. Cable (stainless, nylon, teflon)
2. Pole segments (titanium)
3. Pivot block (stainless, teflon)
4. Instrumentation units (lucite, stainless, nylon)
5. IU cable connections (nylon, teflon, gold)

# How do we ensure the cleanliness of the calibration pole?

---

1. Cable (stainless, nylon, teflon)
  - > UHV clean
  - > LS soak + background counting
  - > extended nitrogen purge
2. Pole segments (titanium)
  - > UHV clean
  - > alcohol, LS, and acid(?) swipe test + background counting
3. Pivot block (stainless, teflon)
  - > UHV clean
  - > nitrogen purge
4. Instrumentation units (lucite, stainless, nylon)
  - > “cleaning procedure for lucite containers”
  - > nitrogen purge
5. IU cable connections (nylon, teflon, gold)
  - > UHV clean
  - > nitrogen purge

# Studying Cleanliness of Kimwipes

---

Is it possible to perform swipe test with sufficient sensitivity?



Counting Kimwipes at Oroville (Al Smith)

The sample consists of 88 wipes (boxfull minus 2 wipes)

U-238 (early)	2.2	pCi total	or	0.025 pCi/wipe
U-238 (late)	0.76	pCi total	or	0.009 pCi/wipe
Th-232 (early)	0.71	pCi total	or	0.008 pCi/wipe
Th-232 (late)	0.36	pCi total	or	0.004 pCi/wipe
Potassium	4.2	pCi total	or	0.048 pCi/wipe

Neither U-series nor Th-series appears to be at equilibrium, but that circumstance is not important in the present context.